(c) U 308 is processed and used as fuel for Nuclear Reactors. The reserves are expected to meet the requirement of the production of nearly 5,500 MWe of electricity for 25 years.

(d) Continuous efforts are made to locate deposits in various parts of the country.

Companies Involved in Mining Sand for Minerals for Atomic Emergy Sources

1708. SHRI BHAGABAN MAJHI: Will the PRIME MINISTER be pleased to state;

(a) whether the private companies and public sector undertakings are involved in mining of sand for minerals for atomic energy sources;

(b) if so, the details of the companies involved in this regard; and

(c) the criteria fixed by Government for selection of such companies?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI S. R. BALASUBRAMONIYAN): (a) to (c) Mining of atomic minerals has been reserved for the Public Sector under the Statement on Industrial Policy, 1991. The Indian Rare Earths Limited (IRE), a Public Sector Undertaking under the administrative control of the Department of Atomic Emergy, and Kerala Minerals & Metals Limited, a Government Kerala undertaking, are the only companies involved in the mining operations.

Gamma Rays Scamiing Technique

1709. SHRI JAGIR SINGH DARD:
DR. SHRIKANT RAMACHANDRA JICHKAR:

WiU the PRIME MINISTER be pleased to state:

(a) whether the scientists and engineers in India have developed the Gamma Rays Scanning Technique to diagnose problms in industrial ccdumns;

(b) if so, the details of this development; and

(c) by when this technique would be commercially available to the public?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI S.R. BALASUBRAMONIYAN): (a) and (b) Yes, Sir. Scientists and Engineers of the Bhabha Atomic Research Centre (BARC), mum-bai have developed Gamma Ray Scanning Technique to diagonse problems in industrial process columns in collaboration with Engineers India Ltd., New Delhi.

This technique is based on the gamma radiation absorption profile of the column. The technique uses a small sealed source of radioactivity (Cobalt-60 or Caesium-137) emitting gamma radiation and a suitable detector. They are placed on either side of an industrial column and synchronously moved along the column to obtain the absorption profile. The profile is interprected based on the internal structure and the chemical/petrochemical process going on inside the column. The Technique is suitable for online troubleshooting, withdut having to shut down the column. It is a modern practice to obtain a 'signature scan' of a healthy column for later comparisor when the column develops a problem.

(c) The technique is already available compercially to the public. Under a Memorandum of Understanding, the BARC, Mumbai and the Engineers. India Ltd., New Delhi offer this service to the industry, either jointly or seperate-ly, depending on the location of the industry and the type of problem.

कम्प्यूटर शिक्षा एवं प्रशिक्षण

1710. **श्री दिलीप सिंह जूदेव** : क्या **प्रधान मंत्री** यह बताने की कृपा करेंगे कि **:**

(क) देश में तेज़ी से स्थापित हो रहे कम्प्यूटर शिक्षा एवं प्रशिक्षण केन्द्रों और उनके द्वारा दिए जा रहे